Elizabeth AMOSUN

Home Country: Nigeria

Degree: Postdoctoral in Veterinary Medicine

Expertise: Bacteriology

Research Focus: Veterinary Microbiology

Host University: University of Illinois, Urbana-Champaign, United States

Fellowship Awarded: 2015

Elizabeth Adesola Amosun was born in Ondo State, Nigeria. She attended both primary school and secondary school in Ibadan, Oyo State, Nigeria - the country's third most populous metropolitan city - where she developed an interest in science.

Elizabeth studied at the University of Ibadan (UI), where in 2000 she graduated as a Doctor of Veterinary Medicine. She followed this with a Masters' and then a PhD degree in Veterinary Microbiology with a dissertation entitled "*Pathogenicity and antimicrobial resistance of mycoplasma and some bacteria isolated from bovine clinical mastitic-milk in five dairy herds in Nigeria*". Elizabeth held a variety of veterinary-related positions during her early studies and since 2007 has been working as a lecturer and researcher at UI and as a clinician in its veterinary teaching hospital.

The postdoctoral research project focuses on understanding high rates of bacterial infection of farm animals that are impacting economic and public health in Nigeria. Elizabeth is studying the molecular interactions and biochemical mechanisms through which *Escherichia coli (E. coli)* gains and spreads antibiotic resistance and other virulence traits, such as protein toxins, that affect animal cells. These antimicrobial resistant bacteria can enter the meat production chain from carrier animals and get transmitted to humans, with potentially lethal consequences. Improved knowledge of the processes involved is of great economic importance to livestock farmers in Nigeria and around the world, as well as to the consumers of their products.

Upon completion of her postdoctoral studies, Elizabeth intends to return to UI to teach veterinary microbiology at undergraduate and postgraduate levels, conduct research herself, and train students to conduct research. She looks forward to sharing the skills and knowledge of modern microbiological diagnostic techniques and skills acquired at the University of Illinois with her colleagues and technologists at her home veterinary teaching hospital.